

IN THE CLAIMS:

1. (Currently Amended) A method of electromanipulation for effecting substantially simultaneous electroporation coincident with and electromigration of molecules into cells, the method comprising, by applying to a cellular target a preselected electrical waveform applying an electrical pulse to a cellular target, the application of the pulse commencing at a pulse initiation time and concluding at a pulse termination time, the time between the pulse initiation time and the pulse termination time defining a pulse duration, the application of the electrical pulse occurring during the pulse duration, the electrical pulse further comprising a predetermined waveform, wherein the predetermined waveform further comprises at least two continuous waveform components, wherein each of the at least two continuous waveform components further comprises a predetermined voltage level and a predetermined component duration.
2. (Original) The method of claim 1 wherein the preselected electrical waveform comprises at least one curved component.
3. (Original) The method of claim 2 wherein the at least one curved component has a duration no greater than five minutes and a maximum amplitude no greater than 10,000 V/cm.
4. (Original) The method of claim 2 wherein the at least one curved component increases in amplitude as a function of time.
5. (Original) The method of claim 2 wherein the at least one curved component decreases in amplitude as a function of time.
6. (Original) The method of claim 1 wherein the preselected electrical waveform further comprises increasing and decreasing curved components.
7. (Original) The method of claim 6 wherein the preselected electrical waveform further comprises a substantially constant amplitude component interposed between the increasing and decreasing curved components.
8. (Original) The method of claim 2 wherein the preselected electrical waveform further comprises a substantially constant amplitude component.
9. (Original) The method of claim 8 wherein the substantially constant amplitude component is applied prior to the at least one curved component.
10. (Original) The method of claim 8 wherein the substantially constant amplitude component is applied subsequent to the at least one curved component.
11. (Original) The method of claim 1 wherein the preselected electrical waveform comprises at least one linear component.

12. (Original) The method of claim 11 wherein the at least one linear component has a duration no greater than five minutes and a maximum amplitude no greater than 10,000 V/cm.
13. (Original) The method of claim 11 wherein the at least one linear component increases in amplitude as a function of time.
14. (Original) The method of claim 11 wherein the at least one linear component decreases in amplitude as a function of time.
15. (Original) The method of claim 11 wherein the preselected electrical waveform further comprises increasing and decreasing linear components.
16. (Original) The method of claim 15 wherein the preselected electrical waveform further comprises a substantially constant amplitude component interposed between the increasing and decreasing linear components.
17. (Original) The method of claim 11 wherein the preselected electrical waveform further comprises a substantially constant amplitude component.
18. (Original) The method of claim 17 wherein the substantially constant amplitude component is applied prior to the at least one linear component.
19. (Original) The method of claim 17 wherein the substantially constant amplitude component is applied subsequent to the at least one linear component.
20. (Original) The method of claim 1 wherein the preselected electrical waveform comprises a plurality of coincident, substantially rectangular components whereby the latest time that the following rectangular component can begin is substantially simultaneously with the completion of the preceding rectangular component.
21. (Original) The method of claim 20 wherein the plurality of coincident, substantially rectangular components are of differing amplitudes.
22. (Original) The method of claim 20 wherein the plurality of coincident, substantially rectangular components have durations no greater than five minutes and maximum amplitudes no greater than 10,000 V/cm.
23. (Original) The method of claim 1 wherein the preselected electrical waveform has an amplitude less than 0.
24. (Original) The method of claim 1 wherein the preselected electrical waveform is administered in series.
25. (Original) The method of claim 24 wherein at least two preselected electrical waveforms in the pulse are of differing shape.